June 2018 Share Package
Utility Contacts

Jeff Beaman, Central Electric Co-op, (541) 312-7753, jbeaman@cec.coop

James Ramseyer, Consumers Power, Inc., (541) 929-8531, jamesra@cpi.coop

Sabrina Owens, Escambia River Electric Co-op, (850) 675-7433, sabrina@erec.com

Margaret Ellerbee, Glades Electric Co-op, (863) 531-5004, mellerbee@gladesec.com

Corinne Bradish, Golden Valley Electric Assoc., (907) 451-5676, cabradish@gvea.com

Theresa Phillips, Lassen Municipal Utility District, (530) 257-6944, tphillips@lmud.org

Traci Brock, Wasco Electric Co-op, (541) 296-2740, tracib@wascoelectric.com

Ruralite Magazine 2018 Schedule of Important Dates

August 2018 Issue

pages 1, 4-5 due .....June 26
special projects due.....July 5
custom covers/color due.....July 5
mailing labels due.....July 9
pages 8, 25, 28-29 due .....July 9
page 32 due.....July 17
camera-ready pages due .....July 19

September 2018 Issue

pages 1, 4-5 due .....July 26
special projects due.....Aug. 6
custom covers/color due.....Aug. 6
mailing labels due.....Aug. 9
pages 8, 25, 28-29 due .....Aug. 9
page 32 due.....Aug. 17
camera-ready pages due .....Aug. 21

October 2018 Issue

pages 1, 4-5 due .....Aug. 27
special projects due.....Sept. 5
custom covers/color due.....Sept. 5
mailing labels due.....Sept. 10
pages 8, 25, 28-29 due .....Sept. 10
page 32 due.....Sept. 19
camera-ready pages due .....Sept. 19

November 2018 Issue

pages 1, 4-5 due .....Sept. 26
special projects due.....Oct. 5
custom covers/color due .....Oct. 5
mailing labels due.....Oct. 9
pages 8, 25, 28-29 due.....Oct. 9
page 32 due.....Oct. 17
camera-ready pages due .....Oct. 17

December 2018 Issue

pages 1, 4-5 due .....Oct. 25
special projects due.....Nov. 5
custom covers/color due .....Nov. 5
mailing labels due.....Nov. 9
pages 8, 25, 28-29 due.....Nov. 9
page 32 due.....Nov. 16
camera-ready pages due .....Nov. 16

January 2019 Issue

pages 1, 4-5 due .....Nov. 26
special projects due.....Dec. 5
custom covers/color due .....Dec. 5
mailing labels due.....Dec. 10
pages 8, 25, 28-29 due.....Dec. 10
page 32 due.....Dec. 17
camera-ready pages due .....Dec. 17

Get Heat Relief, Comfort With Window Awnings

Top, aluminum awnings with sides provide afternoon shading in addition to the large roof overhang, which is effective at noon.

Above, fabric awnings with sides block sun from the windows throughout the entire day. Notice how the awning also shades the window air conditioner.

Photos courtesy of Craft-Bilt

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH. 45244, or go to **www.dulley.com**.

Q: *I've heard installing awnings can save a lot of energy. Do they really save much energy, and what awning choices are best?*

A: Window awnings can reduce summer energy use. There are also other benefits, such as reduced fading of furniture, drapes and carpeting, and protection of your primary windows and doors from the sun and severe weather.

The same ultraviolet rays that fade your furniture also slowly degrade window frame and door materials.

A reduction in air conditioning use results from blocking direct radiant heat from the sun through windows and doors. Studies by the University of Minnesota found installing window awnings can reduce cooling energy needs by as much as 24 percent.

Awning energy saving is greatest during the hottest hours of the afternoon, when the sun is most intense. This reduces the peak electricity load for the utility company, which means a decreased chance of problems associated with high electricity demand.

Many window awning options are available. First, decide if you want fixed or adjustable awnings. They are equally effective during the summer to reduce your peak electricity use in midafternoon. The advantage of adjustable awnings is the level of shading can be changed throughout the day and seasons. Fixed and adjustable models are available in aluminum or fabric over an aluminum frame.

Adjustable fabric awnings offer better protection from severe weather because some can be lowered to be almost flat over the window opening. They can also be raised to expose almost the entire window glass for winter solar heat gain. Fabric awnings using Sunbrella fabrics provide SPF-15 protection. Models using GORE Tenara thread are durable and hold up well to UV degradation.

The advantage of aluminum is its strength and its resistance to degradation from UV rays.

Sideless awning designs—called Venetian awnings—are effective for true south-facing windows because the most intense sun rays come from directly overhead. If you also need to block the late afternoon sun at those south-facing windows, install hood-style awnings with sides. For casement windows, hip-style awnings provide clearance for the window sash to swing open outward.

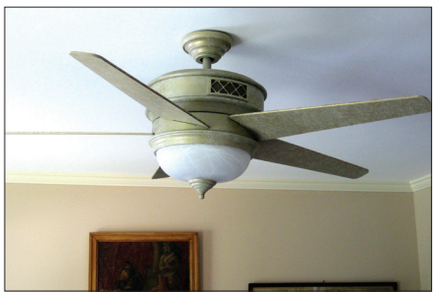
If you are concerned about security and privacy, select an adjustable awning that can be lowered completely flat against the window. This offers privacy and some protection from break-ins and storm damage.

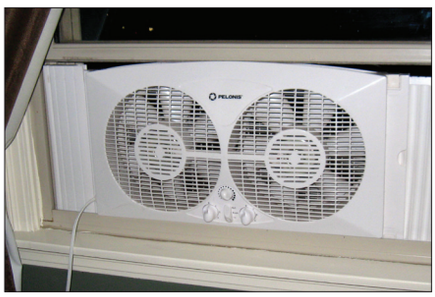
Proper sizing of window awnings is important both for blocking the summer sun and for allowing the winter sun to shine. This is particularly true if you install fixed awnings because their shading angle cannot be changed. The orientation of the window to the sun affects awning sizing because the sun is lower in the sky during early morning and late afternoon.

You can calculate the size of awning needed for various windows and doors. The latitude angle for your area determines how high the sun is in the sky and its angle of incidence on your windows. You can find the sun location for various regions, seasons and times of day in most basic solar energy books.

If you are not a math whiz, just make a test stick awning to determine the proper size. Hold the end of a stick against the top of the window frame or wall at the time of day when you need shading. Vary the stick lengths and the angle until its shadow provides the shading you desire. The width of shade should extend at least two inches on either side of the window. ■

More Comfort With Less Air Conditioning





Above, reversible dual window fans provide many ventilation options for comfort.

Top, install the proper size ceiling paddle fan and always turn it off when you leave the room.

Photos by James Dulley

Q: We like to be cool, but our old air conditioner is expensive to run. Are there ways to use ventilation to stay comfortable without running it as much?

A: Proper ventilation, both from outdoors and within your house, can make you feel cooler and reduce your air-conditioning. The air temperature in your home is not most important. The cooling sensation on your skin is.

Human nature being what it is, people often incorrectly perceive comfort level by the temperature setting.

Moving air feels cooler than still air at the same temperature, allowing you to set the thermostat a few degrees cooler.

There are two types of ventilation. One is moving indoor air throughout your house with the windows closed. In addition to making you feel cooler, it can balance room temperatures and lower the temperature in some rooms and raise it in others. The other type of ventilation is bringing in outdoor air at times and shutting off the central air conditioning. Both can be effective.

Ceiling paddle fans are commonly thought of as indoor ventilation. It does work well. Run the ceiling fan on medium or high speed with the air blowing down to create a direct breeze on your skin. During the winter, reverse the blade rotation and run it on low speed. This gently circulates the warm air around the room without creating a chilly breeze.

Select the proper-sized ceiling fan or you will waste electricity and gain little comfort. General fan blade length recommendations based on room size are:

- 75 square feet: 36 inches
- 75 to 144 square feet: 36 to 42 inches
- 144 to 225 square feet: 44 to 50 inches
- 225 to 400 square feet: 50 to 54 inches

Running any electric fan can make you feel cooler, but it does not cool the room. It actually heats the room air because all of the electricity used ends up as heat.

When no one is in a room to feel the cooling breeze, switch off any electric fan, including ceiling fans. Each kilowatt-hour of electricity used by a fan produces 3,414 Btu of heat, which your central air-conditioner has to remove.

Small personal fans can be effective to create a breeze directly on you while you sit in a chair or work at one location. If you buy a small fan, select one that can also be used as a zoning space heater during winter.

Select a multi- or variable-speed fan with a wide range of speeds. A good rule of thumb is you should be able to feel a comfortable breeze at 10 feet away at high speed. You should feel just a slight air movement from 3 feet away at low speed.

A horizontal, reversible dual-window fan provides a wider range of ventilation options for comfort.

Small personal fans are available. Vornado offers one with cageless soft blades that will not harm you if you bump it. It is foldable for portability. Dewalt offers a variable-speed cordless fan with a rechargeable 20-volt lithium-ion battery. It can run for seven hours at maximum speed with 500 cubic feet per minute. Move it with you from room to room.

Setting your central air conditioner blower to "on" can help to balance out room temperatures, but it will not create much of a cooling breeze. Standard blower motors are powerful, and running one continuously heats the air.

Natural outdoor ventilation is effective and free. When you open double-hung windows or an entry door with a storm/screen door, open both the top and bottom sashes a little. This creates a natural vertical air flow, even on a still day, which will mix with the indoor air.

Sit near a window on the windward side and on the first floor if you have a two-story home. Open the window just a little. Open the windows much wider on the other side or on the second floor. This creates a higher velocity of the incoming air for a stronger breeze. ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH. 45244, or go to **www.dulley.com**.

Safely Celebrate Summer

A few seconds of preparation can lead to months of summer fun

The MacKenzie family didn't dream their 12-year-old daughter would die from an electrical shock when she went swimming with friends, but their tragedy is a reminder about the importance of ground-fault circuit protection around pools and other water sources.

The Studer boys didn't expect an electrical flash when they opened an unlocked electrical box in their new backyard. They were lucky the burns left no permanent scars. The boys and their parents want everyone to understand about pad-mounted equipment.

Steve Wald and his kids felt sure they would make it home on their bikes before the storm hit. Instead, the wind brought a live power line to the ground in front of them. They turned back, sought shelter at the closest home and learned that when thunder roars, you should go indoors.

We don't want anyone to learn about electrical safety the hard way—through a personal experience that ends with life-changing injuries or death.

Working for an electric utility got me thinking about electrical safety several years ago. Like most people, before then, I turned on lights, plugged things in and never thought about electricity unless the power went out. That changed when I learned about the multitude of heartbreaking, life-changing incidents—most of which were avoidable.

I'm passionate about sharing electrical safety information and preventing tragedies, and proud to be part of Safe Electricity—the national educational program that works to prevent electrical tragedies and deaths. I am grateful for the hundreds of utilities who are partners in that mission.

We know that when we arm people with knowledge, they will make the right move to stay safe.

- Make sure you understand the dangers of swimming in a marina or near docks with electrical service. Check for power lines before fishing and cast away from them.
- Help children recognize electrical equipment and stay away. Tell them to never climb trees close to power lines.
- Look up when working with tall tools. Carry ladders horizontally and check for overhead power lines before placing upright.
- Any downed line is potentially energized and deadly. Know what to do in an auto accident that involves downed power lines.

Learn what to do to keep yourself and loved ones safe by visiting SafeElectricity.org. Packed with videos, games, articles and more, SafeElectricity.org is a virtual library for anyone with questions about electrical safety. Learning and understanding electrical safety steps and situations is a valuable investment.

Electricity is an important asset to our modern life, but we must respect that power. If we do not, results can be tragic. More than 1,000 people die and thousands more are injured in electrical incidents and fires each year. We can change that.

As warmer weather sprouts thoughts of happy outdoor scenes such as children running and playing, people enjoying pools and lakes, and folks gardening, most do not think about potential safety hazards. We want you to keep them in mind to ensure a safe season of great memories.

Have a great, safe summer! ■

Summer Safety Tips

Water activities are a great way to stay cool and have a good time with your friends or your family. Take along these tips—and your common sense—to get wet, make waves and have a blast.

- Learn to swim. If you like to have a good time doing water activities, being a strong swimmer is a must.
- Take a friend along. Having friends around is safer and more fun.
- Know your limits. Watch out for the "too's": too tired, too cold, too far from safety, too much sun, too much hard activity.
- Swim in supervised areas. Obey all warnings.
- Wear a life jacket when boating, jet skiing, water skiing, rafting or fishing.
- Stay alert to currents. They can change quickly. If you get caught in a strong current, don't fight it. Swim parallel to the shore until you have passed through it. Learn to recognize and watch for dangerous waves and signs of rip currents—water that is a weird color, really choppy, foamy or filled with pieces of stuff.
- Keep an eye on the weather.
- Don't dive if you don't know the water's depth.
- Don't float where you can't swim.

Molly Hall is executive director for the Energy Education Council, www.safeelectricity.org.

Community Solar Increases Accessibility

Electric cooperatives take lead in developing shared-solar model

By Kaley Lockwood

Harnessing the sun's energy is not a new concept. The U.S. Department of Energy traces humankind's first use of solar energy to the 7th century B.C. when human beings burned ants with a magnifying glass for the first time. While that primitive pastime is sometimes still practiced, humanity's ability to harness the power of the sun has advanced significantly.

Environmentally friendly and increasingly more affordable, solar is an attractive option for many energy consumers. Solar companies, energy providers, governments and consumers all over the world are investing in this renewable energy source, driving technological advancement and innovation to lower costs.

In that spirit, many electric cooperatives are offering community solar programs as an alternative to purchasing a rooftop solar array. Community solar programs help keep costs down and put the burden of maintaining and operating the system on the co-op. But how do solar panels actually generate electricity? Let's break this seemingly abstract concept down and take a closer look at the conversion of sunlight to usable electricity.

Technology Behind Solar Panels

The solar panels often seen on street signs or rooftops consist of smaller, connected photovoltaic cells—*photo* meaning light and *voltaic* meaning the production of electricity.

These cells consist of two layers of a semiconducting material, typically silicon, which are the meat of the solar panels. They are infused with additional elements, giving the top layer a negative charge and the bottom layer a positive charge.

The two silicon layers are sandwiched between several other coatings, including a glass casing, to optimize the PV cell's energy production and provide protection from outside debris.

Converting Sunlight to Electricity

Solar panels are the hardware that facilitates an electrical process. Here's how it works: The sun emits massive amounts of solar energy each day in the form of photons, which are small particles of light. When these photons collide hard enough with PV cells, electrons are knocked loose from atoms in the top silicon layer of the cells, leaving gaps to be filled by electrons from the bottom layer.

Because of the electric field created by the two silicon layers, the loose electrons circulate through the cells in a single direction, out toward the metal sides of the solar panel, creating electricity with a direct current.

This is where the power inverter comes in. The newly generated electricity flows out of the panels through conductive wire and into the inverter system. This system exists because most home appliances and electronics operate on alternating current. The inverter takes care of this discrepancy, converting the power from DC to AC, allowing

consumers to charge phones and watch TV using electricity generated through solar panels.

Once the electricity is in an alternating current, it flows from the inverter to a breaker box and into homes. Any solar energy that goes unused flows through an electrical meter and back onto the electric grid.

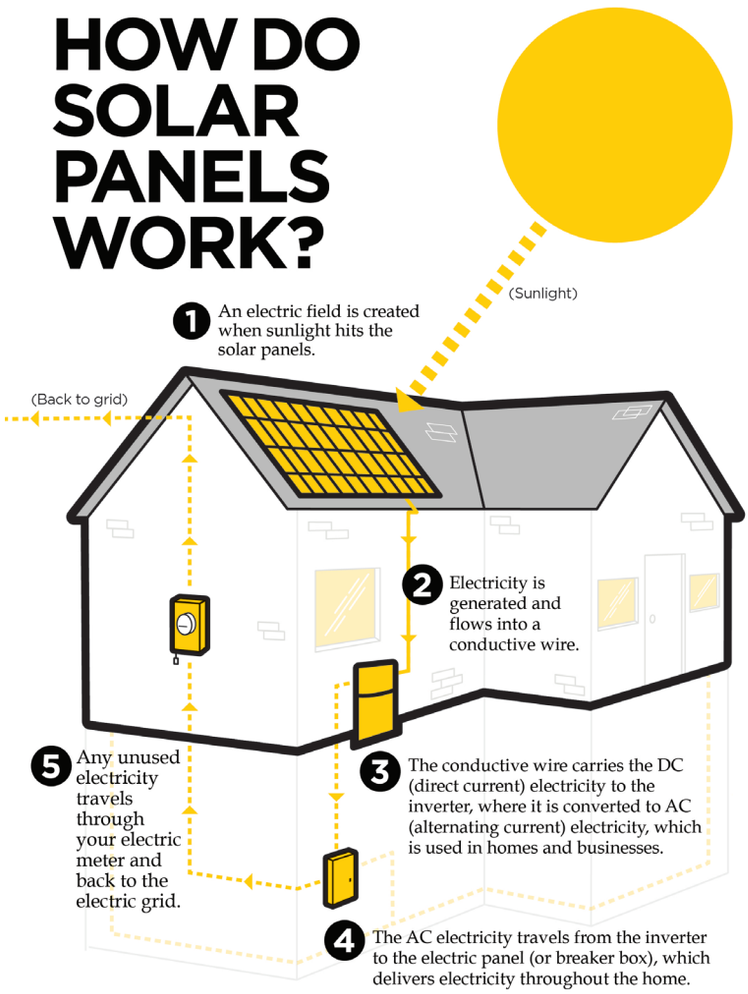
Cooperative Solar

Solar is booming, especially among utilities. Electric cooperatives are leading the electric utility industry in the development of "community solar." This shared-solar model allows co-ops to develop an array for members who can either purchase the power or lease panels.

A community-based program makes solar more equitable for co-op members who are unable to install rooftop solar because of tree shading, renting rather than owning or other factors.

A rooftop solar array can be a great way to reduce monthly energy bills and help the environment, but a community solar program can be a more affordable, low-hassle option. ■

Contact your electric cooperative to find out if it offers a community solar program and learn about its policies regarding member-owned generation.



Foreman Brad Jarmain oversees work for a pole replacement.

Silent Sentinels

Power poles are the backbone of the power grid, standing tall against the elements

By Craig Reed

Don't take those power poles for granted when you pass them on your commute to work or when traveling on family vacations. They deserve your gratitude.

Those poles are key to bringing electricity to your home to power your lights, computer and television. Even while you travel, those poles stay put, continuing to bring power to your house so a light can remain on and food in the freezer remains frozen.

They are good soldiers, standing strong and tall for many years.

Wood utility poles have a long history and have endured many changes through the years. They were first used in 1844 to support telegraph lines. In the early 1900s, electrical lines were added to those poles that by then had been planted throughout much of the United States.

"Nothing beats a wood pole when you're running a line down the road," says Stuart Sloan, compliance manager for Consumers Power Inc. "They are durable and they are climbable by a lineman without a bucket truck. Wood is good for power poles."

Douglas fir trees have proven to make the best poles in the West. That tree is dominant in the forests of Western

CPI crews use a digger truck to dig a hole and place a new pole.

Oregon and Western Washington. Foresters select the trees for this utility job by cruising the forest looking for trees with few knots, straightness and a nice taper.

"A tree to be used for a pole is probably the most valuable piece of wood out in the forest," says Jeff Morrell, a professor of wood science and engineering at Oregon State University since 1983. Jeff studied utility poles while earning his doctorate.

Treatment processes to prevent decay have been developed, which increases the longevity of poles and is a cost savings to utilities. OSU has been at the forefront of those developments, with occasional partnership from CPI.

Poles are pressure treated. That involves applying pressure and heat to a pole in a confined space to force decay-preventing preservatives into it.

After the pole has been in service for 15 to 20 years, chemicals are added to the interior to provide additional protection. If you see someone drilling holes in a pole, it is to add these chemicals to extend pole life.

Pre-drilling holes in the pole used later in the field for attachments is also important because those exposed areas can be treated. Pre-drilled holes can cover at least 90 percent of framing needs.

With the development of treatments and regular inspections, Douglas fir poles can last 60 to 80 years. That is a major improvement over the average pole that lasted only 15 to 20 years in the 1950s and '60s.

Research on utility poles continues. OSU has a team of three full-time researchers, four graduate students and visiting scientists whose focus is utility poles.

"This is the leading program in the world," says Jeff, a member of the team. "We're working to make wood last longer in utility systems. We're tops.

"Wood is the most economical choice for distribution and transmission lines. The poles are treated for industrial use. They're not intended for public use."

CPI has about 38,000 poles in its system. Most are Douglas fir, and the rest are cedar. About 2,000 of those poles were installed in the 1940s.

There are state and federal regulations regarding the treatment, inspection and maintenance of utility poles. Stuart says CPI's poles are on a 10-year inspection cycle.

There are different levels of inspection: a visual look from the ground, checking for cracks in the wood or woodpecker holes; the hammer test, hitting the pole up as high as can be reached from a standing position, listening for a hollow sound that indicates decay; and climbing up to 20 feet on the pole, sounding with a hammer on the way to listen for any hollow sounds.

If a suspicious sound is found, holes are drilled into the pole and a probe is used to determine the extent of decay. If the decay is not extensive, a dose of treatment is placed in the hole and it is plugged with wood.

"We lose some poles prematurely, but those are the exception," Stuart says. "If decay is found within 1 inch of the outside of the pole, it is time to replace the pole. The bulk of the strength of a pole is in its outer diameter.

"All of these different programs are checking on the integrity and safety of the pole and the system. People drive by the poles and think they are static, but there's a lot of activity around the poles, the system and in the right-of-way."

Stuart says that while underground power systems are preferred by many, poles are not going away in our lifetime.

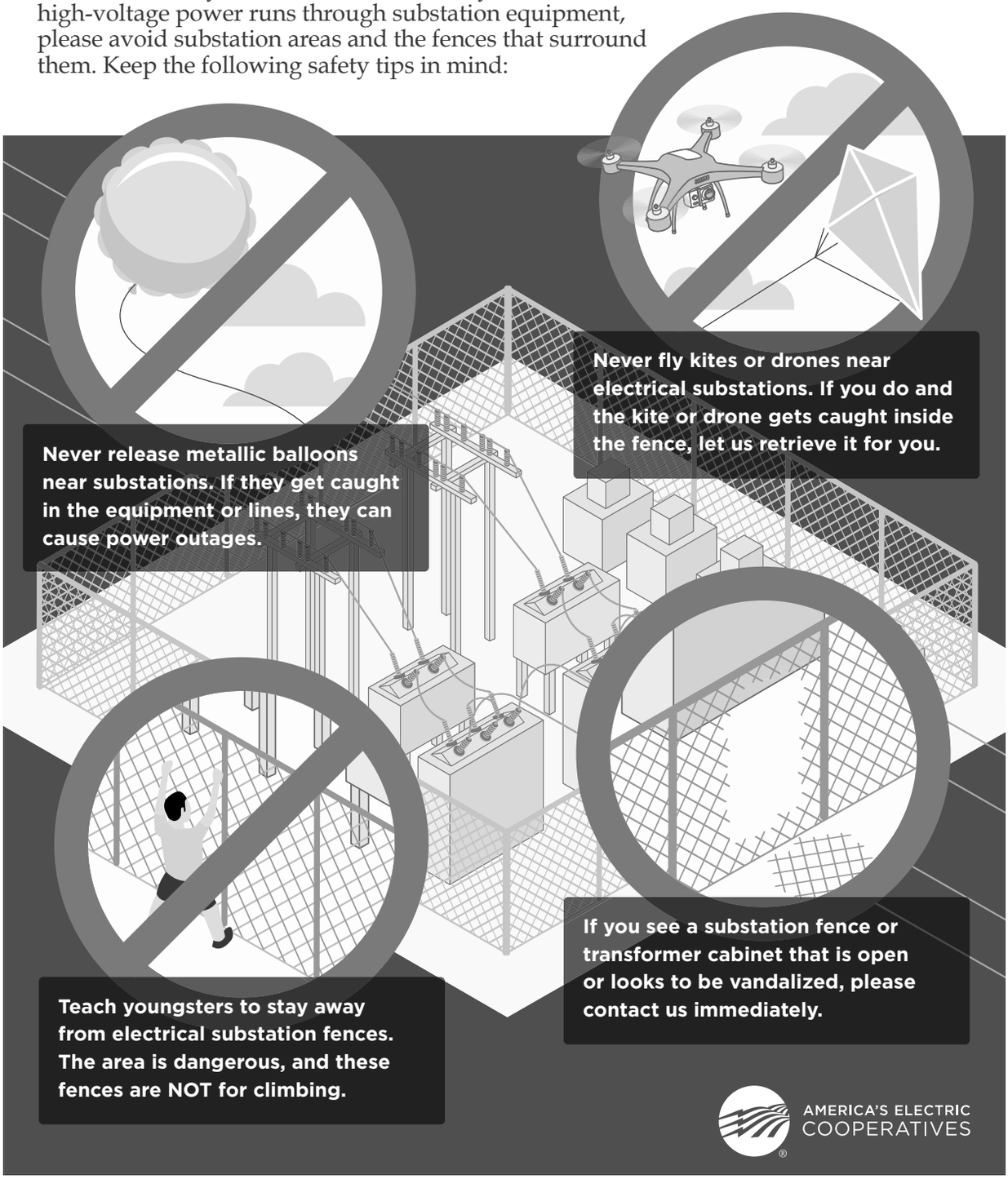
The annual replacement rate for poles across the U.S. is just 0.6 percent, Jeff says. That percentage accounts for every situation from decay to poles being replaced because a road is widened, a storm knocks them over or they are involved in a vehicle accident.

"Wood poles last a long time when treated property," Jeff says. "Utilities do a good job maintaining their poles and keeping them in service for a very, very long time. Newer treatments have been developed and poles will continue to stand out there for a long time."

Ensuring poles last a long time helps keep the lights on in your home and also helps to keep maintenance costs low at CPI. ■

Stay Away from Electrical Substations

An electrical substation converts electricity to a lower voltage so it can be safely routed and delivered to your home. Because high-voltage power runs through substation equipment, please avoid substation areas and the fences that surround them. Keep the following safety tips in mind:



Central Electric's New Home Performance Path can give homeowners flexibility in what they would like to do for energy efficiency.

Save Money and Energy With Your New Home

Efficiencies can be achieved with various CEC programs

By Courtney Cobb

If you build an energy-efficient home you could earn a cash rebate from Central Electric Cooperative. The cooperative offers a variety of new construction programs and incentives for energy-efficient heat-pump water heaters, heat pumps and ductless heat pumps.

New Construction

In November 2017, CEC transitioned from the Energy Star new home program to the New Home Performance Path program.

"The NHPP allows a member to make their home more efficient and receive a proportional incentive based on the kilowatt-hour savings above building code," says Ryan Davies, CEC energy services supervisor. "The member can focus on different aspects of the home like heating/cooling, water heating, lighting appliances, smart thermostats or all, and each category will receive a kWh savings of better than code."

The rebates for this program are dictated by the kWh savings. Ryan says this gives homeowners a great deal of flexibility in what they would like to do for energy efficiency.

CEC does not have a required contractors list for this program. To receive rebates, a member's contractor works with a regional certified verifier before and during construction.

While members who already have their home designed can still qualify for the program, Ryan says the best thing to do is start the process during the design phase.

"Once construction has begun, it is typically too late," he says. "However, members can participate in the al-a-cart programs offered for new construction."

Above all, Ryan points out the NHPP program allows for more flexibility compared to the previous Energy Star program.

"This makes it more approachable and easier to participate," he says. "The great news is that even if a member does not want to participate in the NHPP program, he or she has the opportunity to take advantage of other programs available for new construction."

Manufactured Homes

Another attractive offer for members is the NW Energy Efficient Manufactured Home Energy Star Program. NEEM is easy for members to navigate.

"Simply purchase a NEEM-certified manufactured home, send in the certificate and application found on our website (www.cec.coop), and we verify and send you a check," says Ryan.

Above, Ductless heat pumps move heat instead of generating heat, which requires less energy and gives you higher efficiency.

Left, Heat Pump Water Heaters, like this one being installed, are twice as energy efficient as standard electric models.

Photos by Courtney Cobb

He does point out NEEM-certified manufactured homes might cost a little more up front to buy, but it will pay dividends for the homeowner in the future.

"It is far less expensive than retrofitting the home after it has been built," says Ryan. "The member can enjoy the increased comfort and energy efficiency for years to come."

Al-A-Carte Options

On average, 50 percent of electric bills are typically from heating costs and up to 25 percent are from water heating costs. As you look to build your new home, consider adding a heat pump, ductless heat pump, or heat-pump water heater.

"Focusing on heat costs and water heating costs alone can save an enormous amount over the standard building code approved for heating and water systems," says Ryan.

Heat pumps and ductless heat pumps can help your home stay warm in the winter and cool in the summer while saving on between 25 and 50 percent off your electric bills. Heat pumps and ductless heat pumps move heat instead of generating heat, which requires less energy and gives you higher efficiency. When it's cold outside, a heat pump extracts heat from outside and transfers it inside and it does the opposite in warmer months to cool the home.

Ryan says these systems improve efficiency, comfort, and CEC has cash incentives available. For instance, a member could receive a cash discount of $250 to $1,850 depending on the efficiency of the heat pump and condition of the ducts.

Turning to water heating, HPWHs are twice as energy efficient as a standard electric model and they operate differently. HPWHs pull air in from the space around them, extract the heat from that air and exhaust the cold air. With a standard electric water heater, the water is heated in the tank with electrical heating elements.

Overall, Ryan says participating in any of CEC's energy-efficiency programs allows for a more comprehensive, quality installation, which follows the Bonneville Power Administration's standards.

"The third-party oversight adds to the overall success of the product over its life," he says. "You can have the most efficient system in the world, but if it is not installed properly by a knowledgeable technician, you will not see the benefits of that system." ■

For more information on any of CEC's Energy Efficiency programs, go to www.cec.coop.

Get Involved

Join GVEA's Member Advisory Committee

Have you ever wondered:

- Why is electricity so expensive in Interior Alaska?
- Where does our power come from?
- What exactly does "cooperative" mean?
- What goes into coordinating GVEA's annual membership meeting?

Then now is the time to consider joining Golden Valley's Member Advisory Committee. It's a great way to find out more about your electric co-op and to provide valuable feedback.

The MAC is made up of three members from each of GVEA's seven geographic districts. MAC members:

- Serve three-year terms (beginning in September)
- Meet monthly (typically on the second Wednesday)
- Receives $45 per meeting, plus standard mileage rates for roundtrip travel

All GVEA members (except employees) are eligible to serve on the MAC. Download an application and view a short video about the MAC at www.gvea.com/inside/mac or pick one up at our Fairbanks, Delta Junction or Nenana offices. Applications must be completed and returned to GVEA by **July 31, 2018**. ■

MAC Members

- Bradley Benson
- Mike Bradley
- Audrey Brown
- Alison Carter
- L J Evans
- Dave Forstrom
- Hollis Hall
- Bob Hildebrandt
- Terry Hinman
- Russell Johnston
- John Kelleher
- Andrew McDonnell
- Angela Ritchie
- Karm Singh
- Richard Theilmann
- Paul Tritt Jr.
- Peter Van Flein
- Enlow Walker
- Gary Woody

Above left: former VP of Transmission & Distribution Mike Wright gave MAC members a tour of GVEA's Battery Energy Storage System (BESS).

Above right: MAC members Terry Hinman and Brittnie Welsh opened ballots when votes were tallied for the GVEA Board of Director elections.

GVEA
Golden Valley Electric Association
Your Touchstone Energy® Cooperative

MORE
THAN OPINIONS. EXPERTISE.

While searching for tips on solar and net metering, it was hard to sort fact from opinion. I took a browsing break and called LMUD. My public power utility has a staff of trained and trustworthy energy experts. Working together, LMUD staff helped me become more of an expert about my solar power needs and options. I'll take expertise over opinions any day.

We are public power.
We are **MORE POWERFUL TOGETHER**.

Get expert renewable energy tips and find other ways we are #MorePowerfulTogether at lmud.org.

LASSEN
MUNICIPAL UTILITY DISTRICT

Use Energy Wisely

Beat the Heat This Summer

This time of year, consumers usually see their electric bills rise with the temperature due to the increased use of their air conditioning systems.

Many consumers work their systems harder than necessary, throwing hard-earned money down the drain.

Save money during these hot summer months by using energy more efficiently.

Although use varies among households, air conditioning systems can account for 40 to 50 percent of your monthly power bill during the hottest months of the year, when demand is at its highest.

Ultimately, only you can control the amount of energy you use. A few simple, free steps can help you take charge of your energy consumption and save you money.

Energy-Saving Tips

To alleviate higher power bills:

- Use ceiling fans to disperse cool air. They can make rooms feel a few degrees cooler than they actually are, allowing you to keep your thermostat at a higher temperature. You can save up to 4 percent of your household energy consumption for each degree you raise your thermostat. Be sure to turn off fans when you leave a room.
- Keep your shades closed during the day, especially on east- and west-facing windows. At night, open windows across from one another for cross-ventilation.
- Delay heat-producing activities—such as dishwashing and laundry—until evening. These appliances heat up your home, creating extra work for your air conditioner.
- Keep lamps and TVs away from the thermostat. The heat they produce will cause your air conditioner to run longer, running up the cost of your power bill.
- Do not obstruct air-conditioning vents. If they are covered, you won't feel the cool air you are paying for.
- Change your filter. That will cut your household energy consumption between 5 and 15 percent. Remember to change your filters at least once a month.
- Close unnecessary openings in your home. Keeping doors, windows and fireplace dampers closed will prevent cool air from escaping and going to waste.
- Use the "auto fan" setting on your thermostat. This will keep your home at a constant temperature and prevent your air conditioner from working harder than needed.
- When you first turn on your air conditioner, do not set the thermostat lower than the desired temperature. That will not cool your home any quicker. It will make the air conditioner run longer to cool it to a lower temperature. This wastes energy.
- Keep storm windows closed during the summer. They provide extra insulation for your windows, helping keep the hot air out and the cool air in.

Sealing air leaks is critical to keeping the interior cooler than the exterior.

Invest a Little

Low- to moderate-cost investments could save on overall energy consumption. While these measures require money initially, they eventually pay for themselves in savings:

- Look for a Seasonal Energy Efficiency Rating (SEER) of 14 or higher when buying a new air conditioner. You should begin to see the difference on your power bill immediately.
- Install a programmable thermostat and save up to 10 percent a year. It can automatically adjust the temperature 10 to 15 percent for the hours your home is unoccupied. Programmable thermostats are available in a range of prices and options.
- When buying ceiling fans, look for an Energy Star model. They move air up to 20 percent more efficiently than conventional models.
- Be sure your home is properly insulated. It will keep your home cooler and reduce cooling costs up to 30 percent. Start in the attic, where temperatures can reach 155 degrees Fahrenheit.
- Seal leaks to save 10 percent or more on energy bills. Caulk and weather strip all seams, cracks and openings to the outside.
- Consider high-performance Energy Star windows if you are building a new home or replacing windows in an older home. They can reduce average cooling costs 15 to 35 percent—especially in the South, where summer temperatures often reach the upper 90s and low 100s.

Summer in the South is hot enough already. Why not make your power bill one less thing to sweat about? ■

Think Safe, Ride Safe, Be Safe

As school bells across America signal the end of the year, kids are eager to engage in summer fun with family and friends, often playing on neighborhood streets.

With millions of children out of school, the U.S. Department of Transportation's National Highway Traffic Safety Administration reminds road users to be extra vigilant and keep safety in mind.

Everyone needs to share responsibility to keep children safe this summer and throughout the year. Whether in the car, riding a bike or walking down the street, observe the following safety tips to prevent needless deaths and injuries:

Whenever children and even adults are on wheeled items, they should wear a properly buckled helmet.

Car Safety

- Never leave a child alone in a car, even if the windows are cracked. Temperatures in a vehicle can rise rapidly to levels high enough to kill a child left in a car, even on a mild summer day.
- Look before you lock. To avoid overlooking passengers, make a habit of looking in the vehicle—front and back—before locking the door and walking away.
- Remember your precious cargo. Do things that serve as a reminder that a child is in the vehicle, such as placing a phone, purse or briefcase in the back seat to ensure no child is accidentally left in the vehicle, or writing a note to indicate a child is in the car seat.
- Act to save a child's life. If you see a child alone in a vehicle on a warm day, immediately call 911.
- A child in distress due to heat should be removed from the vehicle as quickly as possible and rapidly cooled.
- Teach children that a vehicle is not a play area. Lock car doors and store keys out of a child's reach.

Pedestrian Safety

- When crossing the street, look left-right-left for cars. Do not cross if a car is coming. Use a crosswalk if available.
- Teach children to walk—not run—across the street.
- Children should cross only with an adult or an older, responsible child.
- Teach children to avoid running out from between parked cars.
- Use sidewalks whenever possible. If there is none, walk facing traffic.
- Always hold your child's hand near moving or parked vehicles.

Bicycle and Helmet Safety

- A child should wear a properly fitting helmet and buckle the chin strap whenever on a bicycle, scooter, skates, rollerblades or a skateboard.
- Ride on bike paths or the sidewalk.
- If you ride along streets, avoid busy ones. Make sure they have a low traffic volume and lower speeds.
- Always ride in the same direction as traffic.
- Stop at all stop signs and signals.
- Never use headphones or cellphones while riding.
- Motorcycle helmets save lives. Never ride without one.

Driver Safety

- Parents should lead by example. Have everyone buckle up, every seat, every trip, every time.
- Children should always ride in the back seat, secured in a properly installed child safety seat, booster seat or seat belt appropriate for their height or weight.
- Always walk around your vehicle before you get in it and back out of a driveway or parking spot. Check blind spots for people and animals.
- Be especially attentive around neighborhoods where children are active.
- Watch for pedestrians. Stop at crosswalks or wherever pedestrians are crossing.
- Be courteous to bicyclists and motorcycle riders. Give full width of a lane at all times.
- Always check mirrors. Signal when changing lanes or merging with traffic.
- Obey traffic lights, signs and posted speed limits.
- Never walk, bike or drive impaired or distracted. Always focus on the road. ■